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RESEARCH PROJECT REPORT 2017-5



# Update of SMRI's Compilation of Worldwide Salt Deposits and Salt Cavern Fields

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# **EXECUTIVE SUMMARY**

Having had accomplished a geological and geotechnical compilation on bedded and domal salt the SMRI research committee decided to deploy an update of these in order to combine the two volumes and to update the contained geological and industrial information. During the past years, much new geological information has been published; the salt industry has developed existing and new cavern storage or mining sites. Also geographical digital data processing has progressed with geographical information systems (GIS).

Therefore, the existing information of the two volumes published in 2006 and 2008 has been reviewed, merged and updated in the presented text. New information has been collected from official sources like libraries, internet data bases and with the help of many SMRI members that either answered a questionnaire or provided valuable information directly to KBB UT. With regard to the questionnaires, KBB UT received 38 completed questionnaires. Nearly 350 references from the bedded and domal salt SMRI studies were taken up and over 250 new references were added to the updated study. The present study has over 640 references.

All geographic data, such as maps, locations of salt deposits and mining sites have been digitized and are available for geographic information system (GIS) viewer. The customer is able to exactly zoom in the area of interest, while using the preferred geographic information (map).

The presented work is focussed on underground salt deposits. With very few exceptions, most quaternary salt lakes and minor surface salt production facilities have not been considered.

After the introduction, Chapter 2 explains the main principles of salt evaporation and deposition along with basic information about salt cavern geometry and the cavern's location within a salt deposit

Chapter 3, represents the description of known salt deposits, alphabetically ordered by continent and then by country. In cases where the deposits cross national borders the alphabetical rule was overridden and cross references are given.

Related to the salt deposits description are printed maps, with Enclosure 1, representing the world map with all collected depositional information and the following Enclosures 2 to 34 represent detailed country or regional maps, referred to throughout the document. Enclosures 35 to 37 list the known cavern sites and salt deposits.

The GIS Manual, in Chapter 4, describes the content and handling of the provided shapefiles.

Finally, the references of this report and the used GIS data are listed in Chapter 5.